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NOTES ON GEOGRAPHIC DISTRIBUTION

First record of *Trachops cirrhosus* (Spix, 1823) (Chiroptera: Phyllostomidae) for the state of Mato Grosso, Central-West region, Brazil

Ricardo Firmino de Sousa [1], Renata C. Claudino de Oliveira Tenório [2] and Karina de Cassia Faria [1*]

1 Universidade do Estado de Mato Grosso, Departamento de Biologia. BR 158, Km 655. CEP 78690-000. Nova Xavantina, MT, Brazil.
2 Universidade Federal do Mato Grosso, Instituto de Ciências Biológicas e da Saúde. Rodovia MT-100, Km 3,5. CEP 78.698-000. Pontal do Araguaia, MT, Brazil.
* Corresponding author. E-mail: *karinafaria@unemat.br*

ABSTRACT: In September 2008, a male of *Trachops cirrhosus* was captured in a gallery forest in the Mário Viana Municipal Park, Nova Xavantina, state of Mato Grosso, Brazil. This capture represents the first record of the species in the state of Mato Grosso.

The subfamily Phyllostominae comprises 16 genera, 15 of which, including the monotypic *Trachops*, occur in Brazil (Peracchi *et al.* 2011). *Trachops cirrhosus* (Spix, 1823) is a medium-sized species, with dense, gray to rusty brown fur. The ears are large, and the chin and lips present numerous conical wart-like protuberances. Forearm measurements range from 57.0 to 64.0 mm and the weight varies from 28 to 45 g (Vizotto and Taddei 1973; Cramer *et al.* 2001). The species can be considered omnivorous and opportunistic, feeding mainly on insects, small lizards, amphibians, and occasionally small mammals and fruits (Peracchi and Albuquerque 1982; Humphrey *et al.* 1983; Emmons and Feer 1997; Cramer *et al.* 2001).

Trachops cirrhosus is widely distributed in South America, with records for Colombia, Venezuela, Trinidad, Guyana, Suriname, French Guiana, Ecuador, Peru, Brazil, and Bolivia, and extending to Central America, with records in Mexico (Gardner 2008; Peracchi *et al*. 2011). In Brazil, it is found in all biomes, with records in the states of (1) Espírito Santo (Ruschi 1951), (2) Amapá (Carvalho 1962), (3) Pará (Handley 1967), (4) Rio de Janeiro (Peracchi and Albuquerque 1982), (5) Roraima (Mok *et al*. 1982), (6) Amazonas (Reis and Guillaumet 1983), (7) Pernambuco (Willig 1983), (8) São Paulo (Trajano 1984), (9) Rondônia (Marques 1989), (10) Distrito Federal (Bredt and Uieda 1996), (11) Acre (Nogueira *et al.* 1999), (12) Ceará (Silva *et al.* 2004), (13) Paraíba (Sousa *et al.* 2004), (14) Goiás (Esbérard *et al.* 2005), (15) Bahia (Faria and Baumgartem 2007), (16) Minas Gerais (Tavares *et al.* 2010), (17) Paraná (Passos *et al.* 2010), (18) Sergipe (Feijó and Nunes 2010), and (19) Mato Grosso do Sul (Cunha *et al.* 2011).

In the state of Mato Grosso, few studies about bat fauna are available (Pelzeln 1883; Miranda-Ribeiro 1914; Pine *et al.* 1970; Gonçalves and Gregorin 2004; Silva and Anacleto 2011). Eighty three species of bats are known in the state, with representatives of all Neotropical families (Gonçalves and Gregorin 2004; Peracchi *et al*. 2011). Nova Xavantina is located in the eastern region of the state of Mato Grosso; it has typical Cerrado vegetation, ranging from grassland to forest formations (Piaia 1999). The climate is tropical humid (*Aw*) according to Köppen's classification; the average annual temperature is 24ºC (Vianello and Alves 2000) and mean rainfall is around 1,500 mm, with a dry season between April and September, and a rainy season between October and March (Pirani *et al.* 2009). Cavalcanti (2002) indicates this region as a priority area for conservation and biodiversity, highlighting the biological importance of the municipality.

On September 4, 2008, an adult male *T. cirrhosus* was captured around 19:30 h, in the Bacaba stream (14°43'10" S, 52°21'35" W), Mário Viana Municipal Park, Nova Xavantina, state of Mato Grosso (Figure 1 and 2A). This individual was captured in a mist net of 7.0 x 3.0 m, placed across a flight path, and represents the first record of this species for the state of Mato Grosso. The municipal park is a protected area covering 492 ha along the highway BR158, in the eastern portion of the Cerrado biome. Its predominant vegetation is Cerrado sensu stricto, as well as gallery forests, and patches of woodland and rocky Cerrado (Silva *et al*. 2008). The locality where the bat was captured is a gallery forest, which is characterized by a forest phytophysiognomy with a predominance of tree species, forming a continuous and closed canopy. When the bat was captured, the average temperature was 26.5°C (minimum 14°C - maximum 39.1°C) and there was no precipitation (meteorological station of Nova Xavantina-MT, OMM: 83319).

The specimen shows a dense coat with brown tones, lighter in the proximal part of the fur. External and cranial measurements (in mm) obtained with a digital caliper and following the methodology described by Vizotto and Taddei (1973), are as follows: forearm 64.3; thumb 14.6; ear 31.9; tibia 25.9; foot 16.5; calcaneus 15.3; greatest length of skull 29.8; condylocanine length 23.1; condylobasal length 24.1; maxillary toothrow length 10.9; zygomatic breadth 14.0; width of braincase 12.0; mastoid width 13.8; postorbital width 5.7; width across molars 11.4; width across canines 6.6; length of mandible 11.9. These

measurements agree with those reported by Simmons and Voss (1998) and Cramer *et al.* (2001) (Figure 2B), which can also be said about the body mass (32.5 g) and dental formula (i: 2/2, c: 1/1, pm: 2/3, m: 3/3 = 34) of the new specimen.

The specimen was collected under the permit 18276-1 (IBAMA - Brazilian Institute of Environment and Renewable Natural Resources) and was deposited in the Scientific Collection of Chiroptera of the State University of Mato Grosso, *Campus* of Nova Xavantina, under collection number RM 42. Identification was performed according to the criteria presented by Vizotto and Taddei (1973) and Gardner (2008), and the species nomenclature follows Simmons (2005). According to the IUCN (International Union for Conservation of Nature) classification (IUCN 2012), *T. cirrhosus* is at low risk of extinction.

Trachops cirrhosus prefers environments with low degrees of anthropogenic impact (Cramer *et al.* 2001). The capture of this specimen followed this pattern since the environment is highly preserved.

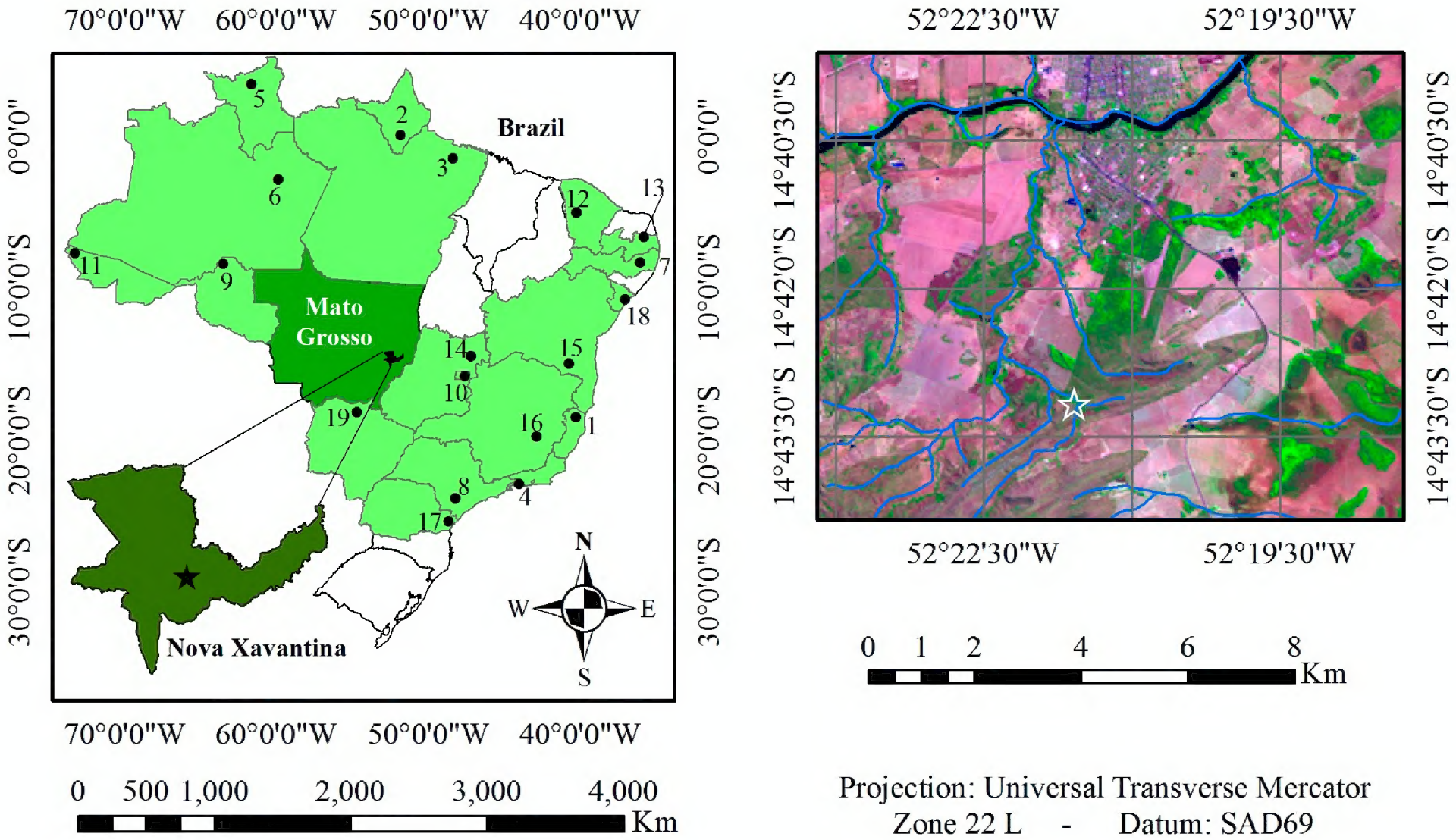

FIGURE 1. Map showing the distribution of *Trachops cirrhosus* in Brazil. The points represent previous records (the references are presented in the text), and the star represents the new record, in the state of Mato Grosso.

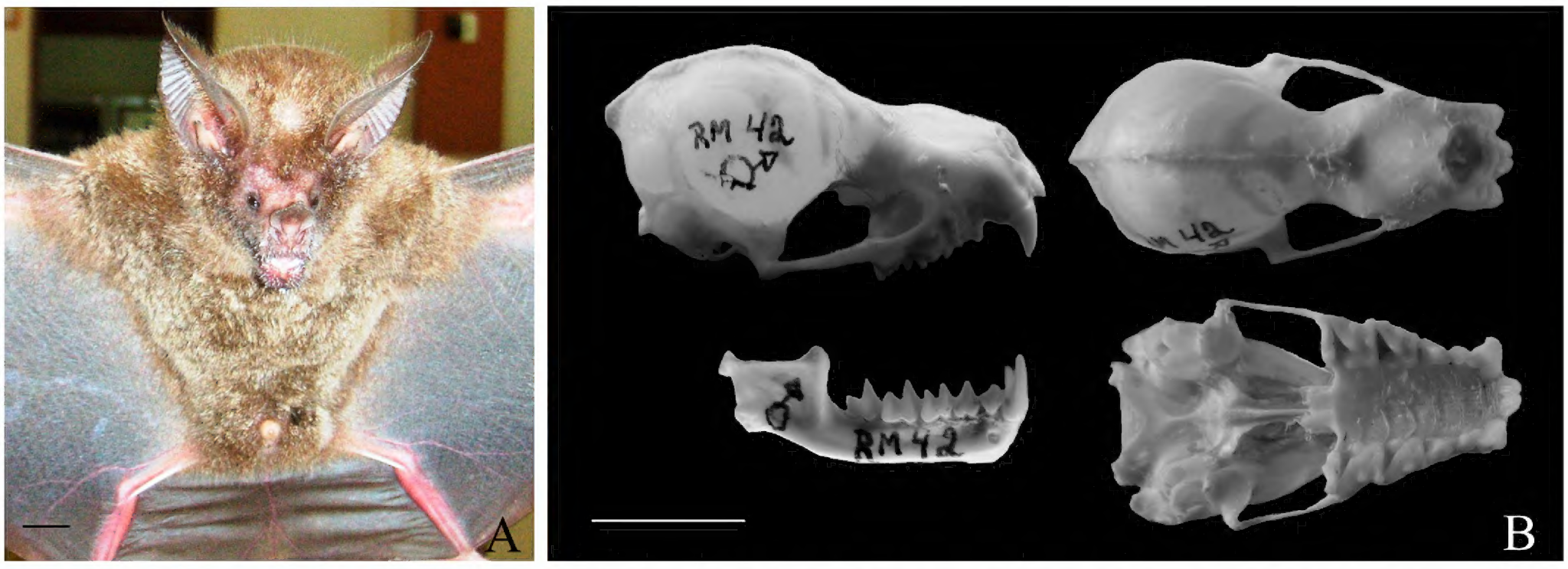

FIGURE 2. Live photograph of the adult male *Trachops cirrhosus* (RM 42) collected in Nova Xavantina, state of Mato Grosso, Brazil (A), and lateral, dorsal, and ventral views of its skull, and lateral view of its mandible (B). Scale bar = 1.0 cm.

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